PROJECT: 4 UNITS OF SINGLE FAMILY ATTACHED **ZONING: RL-7**

LOT SIZE: 13,121sf (FRONTAGE: 105')

LOT COVERAGE: 4,850sf

GENERAL CONSTRUCTION NOTES

GENERAL CONSTRUCTION NOTES

ALL DIMENSIONS ARE CALCULATED FROM OUTSIDE FACE OF FOUNDATION AND OUTSIDE FACE OF EXTERIOR STUD WALLS TO THE CENTERLINE OF INTERIOR STUD WALLS UNLESS NOTED. STUD WALLS NOT DIMENSIONED ARE TYPICALLY 2 X 4 (3 1/2").

WINDOWS APPEARING ON THE FLOOR PLANS AND EXTERIOR ELEVATIONS ARE TO BE CONFIRMED THROUGH WINDOW SCHEDULE.

ICE & WATER SHIELD TO BE INSTALLED PER MANUFACTURER'S INSTRUCTIONS AT ALL AT ALL INTERSECTIONS BETWEEN ROOFS, WALLS, CHIMNEYS, PROJECTIONS AND PENETRATIONS AND UNDER FIRST 2 COURSES OF ROOF SHINGLE AROUND PERIMETER OF ROOF.

ADEQUATE ATTIC VENTILATION AND ROOF VENTS ARE TO BE PROVIDED AS SHOWN ON PLANS. ALL PLUMBING AND MECHANICAL VENTS TO BE LOCATED CLOSE TOGETHER WITHIN THE ATTIC SPACE WHEN POSSIBLE TO MINIMIZE THE NUMBER OF ROOF PENETRATIONS. ALL PLUMBING AND MECHANICAL VENTS WHICH APPEAR ABOVE THE ROOF TO BE LOCATED AWAY FROM ANY PROMINENT VIEW. NO VENT TO BE ALLOWED ON THE FRONT ROOF. ALL METAL AND PVC VENTS AND PENETRATIONS TO BE PRIMED AND PAINTED TO CLOSELY MATCH THE ROOF COLOR.

UTILITY METERS TO BE PLACED OUT OF ANY PROMINENT VIEW AND AS CLOSE TO GRADE AS POSSIBLE TO MINIMIZE THERE VISUAL IMPACT.

GUTTERS AND DOWN SPOUTS ARE NOT LOCATED ON ELEVATIONS. LOCATIONS OF DOWN SPOUTS ARE TO BE DETERMINED ON SITE DUE TO TOPOGRAPHICAL CONDITIONS TO ALLOW POSITIVE DRAINAGE AWAY FROM THE HOUSE. DOWN SPOUTS NOT TO BE LOCATED IN PROMINENT LOCATIONS. GUTTERS AND DOWN SPOUTS ARE TO CLOSELY MATCH TRIM COLOR OF THE HOUSE.

GENERAL FLOOR PLAN NOTES

DO NOT SCALE DRAWINGS. FOLLOW DRAWING DIMENSIONS ONLY. IF DIMENSION IS NOT CALLED OUT, VERIFY DIMENSION WITH DESIGNER.

ALL DIMENSIONS ARE CALCULATED FROM OUTSIDE FACE OF EXTERIOR WALL STUDS TO THE CENTERLINE OF INTERIOR STUD WALL UNLESS NOTED. INTERIOR STUD WALLS NOT DIMENSIONED ARE TYPICALLY 2 X 4 (3 1/2"), EXTERIOR STUD WALLS ARE 2 X 6 (5 1/2") AND WHEN POSSIBLE PLUMBING WALLS.

ALL INTERIOR WALLS TO BE COVERED WITH 1/2" GYPSUM BOARD, WITH METAL CORNER REINFORCING, TAPE, FLOAT AND SAND (3 COATS). WALLS COMMON TO THE GARAGE AND HOUSE TO HAVE A LAYER OF 5/8", TYPE X FIRE RATED GYPSUM

BOARD ON GARAGE SIDE.

EMERGENCY ESCAPE WINDOWS IN BEDROOM TO HAVE A MINIMUM NET CLEAR OPENING OF 3.3 SQ.FT., A MINIMUM NET CLEAR OPENING OF 20" x 24" IN EITHER DIRECTION, AND HAVE A MAXIMUM FINISHED SILL HEIGHT OF 44" ABOVE FINISHED FLOOR AND A WINDOW ROUGH OPENING HEAD HEIGHT OF 6'-10 1/2" (+/-). TEMPERED GLASS SHALL BE PROVIDED AT THE FOLLOWING LOCATIONS:

WITHIN 18" OF A FLOOR & 24" OF A DOOR, INCLUDING THE DOOR WITHIN 5' OF WET FLOOR SURFACES. TUB OR SHOWER ENCLOSURES UP TO 5' HEIGHT

WITHIN 5' ADJACENT TO BOTTOM OF STAIR LANDING UP TO 3' IN HEIGHT. BATHROOMS AND UTILITY ROOMS TO BE VENTED TO THE OUTSIDE WITH A MINIMUM OF 50 CFM FAN. RANGE HOODS TO BE VENTED TO THE OUTSIDE.

CABINET SUBCONTRACTOR TO "FIELD VERIFY" ALL CABINET DIMENSIONS AND LAYOUTS BEFORE

STAIRWAYS SHALL NOT BE LESS THAN 36" IN CLEAR WIDTH AT ALL POINTS ABOVE THE PERMITTED HANDRAIL HEIGHT AND THE PERMITTED HEADROOM HEIGHT. THE MINIMUM WIDTH AT OR BELOW THE HANDRAIL HEIGHT SHALL NOT BE LESS THAN 32" WHERE A HANDRAIL IS INSTALLED ON ONE SIDE AND 28"

WHERE HANDRAILS ARE PROVIDED ON BOTH SIDES. THE MINIMUM HEADROOM IN ALL PARTS OF THE STAIRWAY SHALL NOT BE LESS THAN 6'-8" MEASURED VERTICALLY FROM THE SLOPED PLANE ADJOINING THE TREAD NOSING OR THE NOSING FROM THE FLOOR

SURFACE OF THE LANDING OR PLATFORM. THE MAXIMUM RISER HEIGHT SHALL BE 8-1/4" AND THE MINIMUM TREAD DEPTH SHALL BE 9". TREAD NOSING SHALL NOT EXTEND MORE THAN 1-1/2" BEYOND THE FACE OF THE RISER BELOW.

OPEN SIDES OF STAIRS WITH A TOTAL RISE OF MORE THAN 30" ABOVE THE FLOOR/GRADE SHALL HAVE GUARDRAILS, WHICH SHALL ALSO SERVE AS HANDRAILS, NOT LESS THAN 36" IN HEIGHT. REQUIRED GUARDRAILS ON OPEN SIDES OF STAIRWAYS, BALCONIES, PORCHES, DECKS AND RAISED FLOOR

AREAS, SHALL HAVE BALUSTERS WHICH PREVENT THE PASSAGE OF AN OBJECT 4" OR MORE IN DIAMETER.

ALL CONCRETE WORK SHALL CONFORM WITH THE LATEST REQUIREMENTS OF THE AMERICAN CONCRETE

ALL REINFORCING BARS TO BE ASTM A-615 GRADE 60 DEFORMED BARS. DAMP PROOFING REQUIRED BELOW GRADE ON EXTERIOR WALLS.

THE MINIMUM COMPRESSIVE STRENGTH OF CONCRETE AT THE END OF 28 DAYS SHALL BE AS FOLLOWS: ALL CONCRETE FLAT WORK EXPOSED TO WEATHER = 3500 P.S.I. ALL OTHER CONCRETE = 3000 P.S.I. FOUNDATIONS ARE TO BE CARRIED DOWN TO DEPTH NECESSARY TO OBTAIN A SAFE UNDISTURBED SOIL BEARING CAPACITY OF 1.5 TONS PER SF

ALL EXTERIOR FOOTINGS SHALL BE NOT LESS THAN 4'-0" BELOW GRADE. NO FOOTING SHALL BE PLACED IN WATER, ON FROZEN GROUND UNSUITABLE MATERIAL OR FILL.

CONCRETE COVER SHALL BE AS FOLLOWS: FLOOR SLABS = 1-1/2" FOUNDATION WALLS = 2" FOOTINGS = 3'

ALL SLABS TO BE PLACED ON WELL COMPACTED GRAVEL.

COORDINATE FOUNDATION PENETRATIONS FOR SEWER, WATER, AND OTHER UTILITIES AS REQUIRED. NO BACK FILL SHALL BE PLACED AGAINST FOUNDATION WALLS UNLESS WALLS ARE SUFFICIENTLY BRACED TO PREVENT MOVEMENT OR STRUCTURAL DAMAGE.

CONTRACTOR SHALL USE EXTREME CARE IN LOCATING, PROTECTING, AND RELOCATING ANY AND ALL UTILITIES ASSOCIATED WITH PROPOSED PROJECT IN ACCORDANCE WITH THE OWNER AND DESIGNATED UTILITIES REPRESENTATIVE DIRECTIVES.

TYPICAL FOUNDATION WALL 10" THICK X 7'-11"± HIGH.

TYPICAL WALL FOOTING 12" THICK X 24" WIDE WITH (2) #4 BARS CONT. TYPICAL COLUMN FOOTING 2'-6" SQ. X 12" DEEP WITH (2) #4 BARS EACH WAY

ALL DIMENSIONS ARE CALCULATED FROM THE OUTSIDE FACE OF THE WALL TO THE OUTSIDE FACE OF THE WALL, AND TO THE CENTERLINE OF PIERS UNLESS OTHERWISE NOTED.

PROVIDE A 1/2" EXPANSION JOINT MATERIAL BETWEEN ALL CONCRETE SLABS ON ABUTTING CONCRETE OR MASONRY WALLS OCCURRING IN EXTERIOR OR UNHEATED AREAS.

PROVIDE 1-1/4" DEEP SCORE CONTROL JOINTS AT MID POINTS OF ALL GARAGE SLABS, BOTH DIRECTIONS. PROVIDE 2" X 24" X CONTINUOUS R-10 CLOSED CELL RIGID INSULATION AROUND PERIMETER OF BASEMENT

FOUNDATION ANCHORAGE 130 MPH EXPOSURE B WITH 3" X 3" X 1/4" PLATE WASHERS @ 26" O.C MAX. WITHIN 1'-0" OF ALL CORNERS EACH WAY. MIN OF 7" EMBEDMENT UNTO CONCRETE FOUNDATION.

GENERAL FRAMING NOTES LOCATION LIVE DEAD TOTAL LOADS DEFLECTION

ALL FRAMING MATERIAL SHALL HAVE A MIN. Fb OF 1200 PSI

ALL WOOD FRAMING IN CONTACT WITH CONCRETE OR MASONRY TO BE PRESSURE TREATED. PROVIDE DOUBLE FLOOR JOIST UNDER ALL WALLS WHICH RUN PARALLEL TO THE DIRECTION WHICH THE JOIST SPAN.

PROVIDE 1" X 3" CROSS BRACING OR SOLID BLOCKING AT THE MID SPAN OF ALL FLOOR JOISTS. FLOOR CONSTRUCTION: 3/4" TONGUE AND GROOVE PLYWOOD SUBFLOOR, FINISHED MATERIAL TO BE

APPLIED OVER SUBFLOOR. GLUE AND SCREW PLYWOOD DECKING TO FLOOR JOIST. ALL STUD FRAMED WALLS TO BE FRAMED AT 16" O.C. MAXIMUM (UN).

ALL ANGLED WALLS ARE TO BE FRAMED AT 45 DEGREES UNLESS NOTED OTHERWISE. HEADER SIZE TO BE (2) 2X 'S WITH UNFACED FG BATT INSULATION IN CAVITY UNLESS NOTED OTHERWISE.

ALL HEADERS TO BE FREE FROM ALL SPLITS AND CHECKS. PROVIDE FULL SOLID BEARING OR STUD BEARING UNDER ALL BEAM BEARING POINTS.

ALL BEAM AND JOIST INTERSECTIONS TO BE FLUSH FRAMED WITH GALVANIZED JOIST HANGERS. ALL BEAMS TO HAVE TRIPLE STUD BEARING UNDER EACH END.

UNLESS OTHERWISE NOTED, PROVIDE A 2X PLATE BOLTED TO THE TOP FLANGE OF ALL STEEL BEAMS WITH 3/8" DIAMETER BOLTS STAGGERED AT 24 " O.C.

UNLESS OTHERWISE NOTED, PROVIDE DOUBLE HEADER JOIST AND TRIMMERS AT ALL FLOOR OPENINGS STAIR CONSTRUCTION TO CONSIST OF (4) 2X12 STRINGERS.

TEMPORARY GUARDRAILS MUST BE INSTALLED AT ALL FLOOR OPENINGS ALL WALLS OVER 10'-0" HIGH TO BE 2X6'S AT 16" O.C. AND RECEIVE 2 ROWS OF 2X6 BLOCKING AT 1/3 POINTS

SPAN OVER ALL PLATES AND AND HEADERS.

FLOOR FRAMING LAYOUT IS DESIGNED TO PROVIDE BEST POSSIBLE ACCESS TO THE HVAC DUCTS AND

UNOBSTRUCTED RUNS FOR THE DUCT WORK. PROVIDE BLOCKING AT ALL CABINET AND BATHROOM ACCESSORIES LOCATIONS

PROVIDE 2X4 RAFTER TIES AT ALL PLATES WHERE JOIST RUN PERPENDICULAR TO RAFTERS. HIP. VALLEY RAFTERS. AND RIDGE BOARDS TO BE ONE SIZE LARGER THAN TYPICAL RAFTERS UNLESS OTHERWISE NOTED ON PLANS.

PROVIDE 2X6 COLLAR TIES AT UPPER 1/3 OF VERTICAL DISTANCE BETWEEN RIDGE BOARD AND CEILING JOIST AT EACH ROOF RAFTER.

PROVIDE INSULATION BAFFLES AT EAVE VENTS BETWEEN RAFTERS. REQUIRED GUARDRAILS ON BALCONIES, PORCHES, DECKS AND RAISED FLOOR AREAS, SHALL HAVE A MINIMUM HEIGHT OF 36" MEASURED VERTICALLY FROM THE FINISHED DECK. PROVIDE CONT. 2X10

BLOCKING AT ALL WALLS WHERE DECK TOUCHES THE LIVING UNIT AT DECK FRAME HEIGHT.

ALL FRAMING, INCLUDING BEAMS, JOISTS, RAFTERS AND COLUMNS SHALL BE SIZED BY LUMBER YARD AS SELECTED BY FRE BUILDING CO.

PROVIDE 2" R-10 RIGID INSULATION AT SLAB EDGES. SEE FOUNDATION PLAN.

PROVIDE R-21 BATT INSULATION WITH VAPOR BARRIER IN 2X6 WALLS, AND MINIMUM R-49 BATT INSULATION IN ALL CEILINGS EXPOSED TO EXTERNAL CONDITIONS. ALLOW 1-1/2" MINIMUM AIRSPACE BETWEEN SHEATHING AND INSULATION. INSTALL INSULATION WITH VAPOR BARRIER TO WARM SIDE.

FLOORS OVER UNCONDITIONED SPACE TO HAVE R-30 INSULATION WITH VAPOR BARRIER (FACING WARM HVAĆ DUCTS LOCATED IN UNHEATED SPACES TO BE INSULATED WITH A MIN. OF 2" OF INSULATION AND

SEAL DUCT WORK W/ RED DUCT CAULKING AND SCREWS ON THE 4 COMPASS POINTS.

ELECTRICAL CONTRACTOR TO BE RESPONSIBLE FOR ADHERING TO ALL CODES AND SAFETY

GENERAL AND ELECTRICAL CONTRACTOR TO REVIEW THE PLAN(S) AND WALK THROUGH THE JOB TO VERIFY THAT THE DESIGN INTENT IS MAINTAINED.

GAS OR ELECTRICAL SERVICE TO BE PROVIDED AS REQUIRED FOR ALL APPLIANCES AND EQUIPMENT SUCH AS REFRIGERATOR, DISH WASHER, DISPOSAL, HVAC EQUIPMENT, ALARM PANEL, LAWN SPRINKLER SYSTEM, ETC. OUTLET TO BE PROVIDED ABOVE THE RANGE FOR MICROWAVE OR HOOD VENT IF FINAL KITCHEN

ALL OUTLETS PLACED NEAR ANY WATER CONDITION TO BE G.F.C.I. TYPE.

LOCATIONS OF SWITCHES AND OUTLETS TO BE COORDINATED WITH OWNER. PROVIDE 2 EXTERIOR WATERPROOF OUTLETS.

ALL PHONE OUTLETS, COMPUTER OUTLETS, CABLE TV OUTLETS, AND ELECTRONIC DEVICE OUTLETS LOCATIONS TO BE VERIFIED BY OWNER.

DIMMERS TO BE SIZED FOR THE APPROPRIATE LOAD OF THE FIXTURES AND LAMPS SELECTED. VERIFY TRIM SIZE FOR ALL DOORS AND WINDOWS PRIOR TO LOCATING SWITCHES. ALL LOCATIONS SHOULD

BE CLOSE TO TRIM AND ALIGNED WITH ONE ANOTHER IF THERE ARE MULTIPLE. BLOCK AND PREWIRE SEPARATE SWITCHES TO EACH LIGHT AND CEILING. IF EXTERIOR SECURITY LIGHTING IS DESIRED BY OWNER THE TYPE, LOCATION, AND REQUIRED SWITCHING

IF AN ALARM IS DESIRED ALL OF THE REQUIREMENTS MUST BE COORDINATED WITH THE OWNER PROVIDE HARDWIRED SMOKE DETECTORS, WITH BATTERY BACKUP. AS REQUIRED: IN THE IMMEDIATE VICINITY OF BEDROOMS, IN ALL BEDROOMS, AND 1 SMOKE DETECTOR IS REQUIRED PER 1,200 SQ. FT. OF SPACE (INCLUDING BASEMENT). ANY SMOKE DETECTOR LOCATED WITHIN 20 FEET OF A KITCHEN OR

WITHIN 20 FEET OF A BATHROOM CONTAINING A TUB OR SHOWER SHALL BE A PHOTO ELECTRIC TYPE SMOKE DETECTOR BUT SHALL SATISFY THE COMPATIBILITY REQUIREMENTS OF 780 CMR 5313.2.10. PANEL BOX TO BE 200 A SIZED TO ACCOMMODATE ALL CALCULATED LOADS AND PROVIDE FOR A MINIMUM

ELECTRIC AND GAS METERS TO BE LOCATED AWAY FROM ANY PROMINENT VIEW. GENERAL PLUMBING

PLUMBING SUBCONTRACTOR IS RESPONSIBLE FOR ADHERING TO ALL APPLICABLE CODES AND SAFETY REQUIREMENTS.

PROVIDE GAS SERVICE TO ALL WATER HEATERS, HVAC EQUIPMENT AND APPLIANCES AS REQUIRED. IF WALL PLATES OR JOISTS ARE CUT DURING INSTALLATION OF PLUMBING FIXTURES OR EQUIPMENT PROVIDE BRACING TO TIE FRAMING BACK TOGETHER.

ALL GAS WATER HEATERS TO BE VENTED AT TOPOUT ALL PLUMBING AND MECHANICAL VENT STACKS TO BE LOCATED CLOSE TOGETHER IN THE ATTIC. VENT STACKS TO BE LOCATED TO THE REAR OF THE HOUSE AWAY FROM PROMINENT VIEW. ALL VENT STACKS TO

BE PRIMED AND PAINTED TO CLOSELY MATCH ROOF COLOR. PROVIDE SHOWER CURTAIN RODS IN TUBS IN ALL BATHS.

INSULATE ALL <u>HOT WATER AND COLD WATER</u> PIPES IN UNHEATED AREAS.

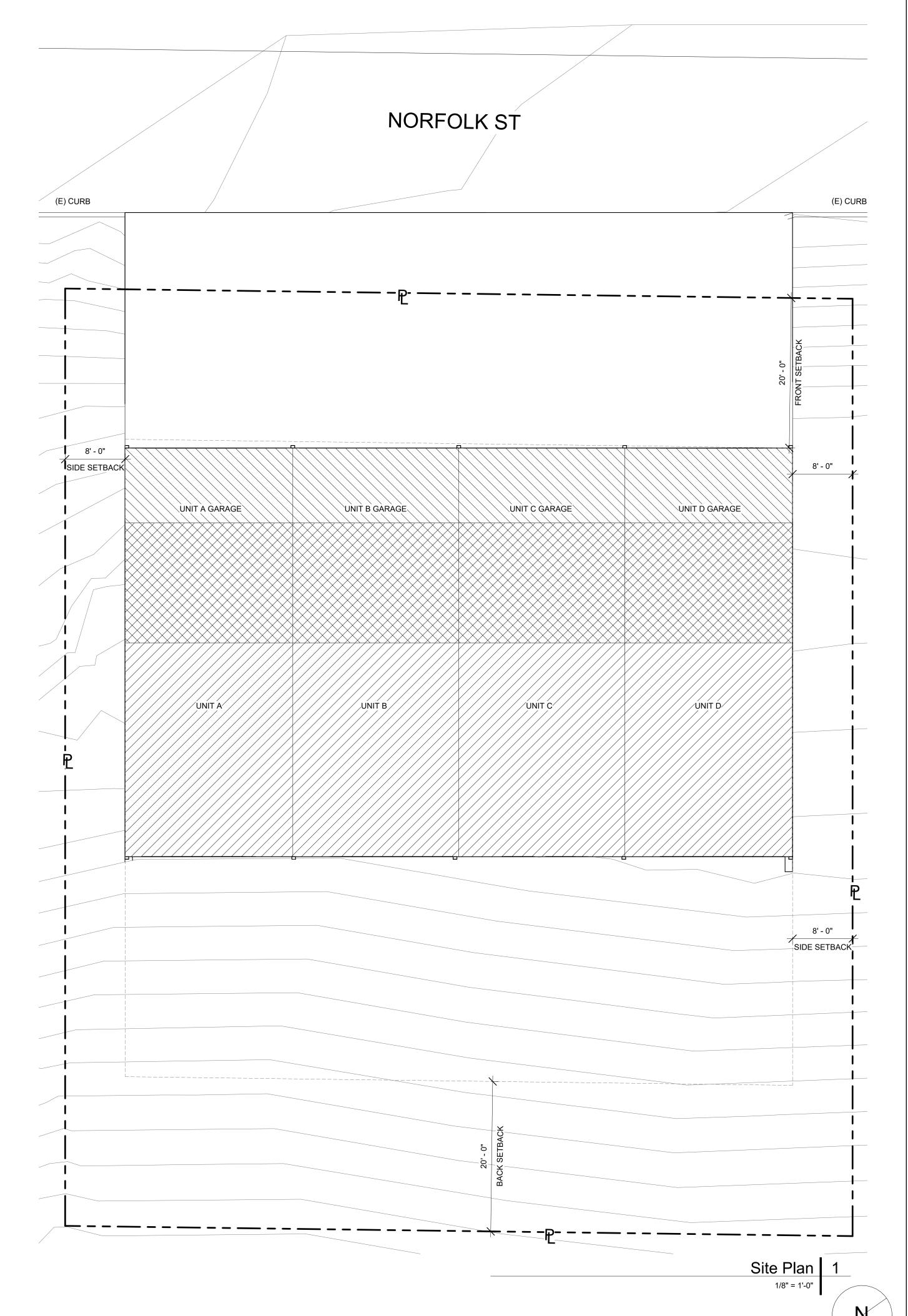
H.V.A.C. SUBCONTRACTOR IS RESPONSIBLE FOR ALL APPLICABLE CODES AND SAFETY REQUIREMENTS. HVAC SUBCONTRACTOR TO FULLY COORDINATE ALL SYSTEM DATA AND REQUIREMENT S WITH THE EQUIPMENT SUPPLIER. SYSTEM LAYOUT TO BE DISCUSSED WITH GENERAL CONTRACTOR, AND OWNER FOR

ATTIC HVAC UNIT(S) TO BE LOCATED WITHIN 20 FT. OF THEIR SERVICE OPENING. DO NOT LOCATE RETURN AIR GRILLES WITHIN 10 FT. OF A GAS FIRED APPLIANCE. DO NOT LOCATE UNIT(S) OVER AREAS WITH A SPAN MORE THAN 10'-0"

ALL MECHANICAL AND PLUMBING VENT STACKS INCLUDING GAS FLUES TO BE LOCATED TOGETHER IN THE ATTIC TO MINIMIZE ROOF PENETRATIONS. VENT STACKS TO BE LOCATED TO THE REAR OF THE HOUSE AWAY FROM PROMINENT VIEW. ALL VENT STACKS AND FLUES TO BE PRIMED AND PAINTED TO CLOSELY

MATCH THE ROOF COLOR. ALL HVAC DUCT WORK SHALL BE INSULATED W/A MIN. OF 2" BLANKET INSULATION WITH A VAPOR BARRIER ALL METAL DUCT WORK SHALL BE SEALED W/ RED DUCT CAULKING, SCREWED (MIN. FOUR (4) SCREWS AT THE FOUR (4) MAJOR COMPASS POINTS.

NO FLEX DUCT SHALL BE MORE THAN 12'-0" LONG. HVAC NOT TO BE PLACED IN FRONT OF WINDOWS.





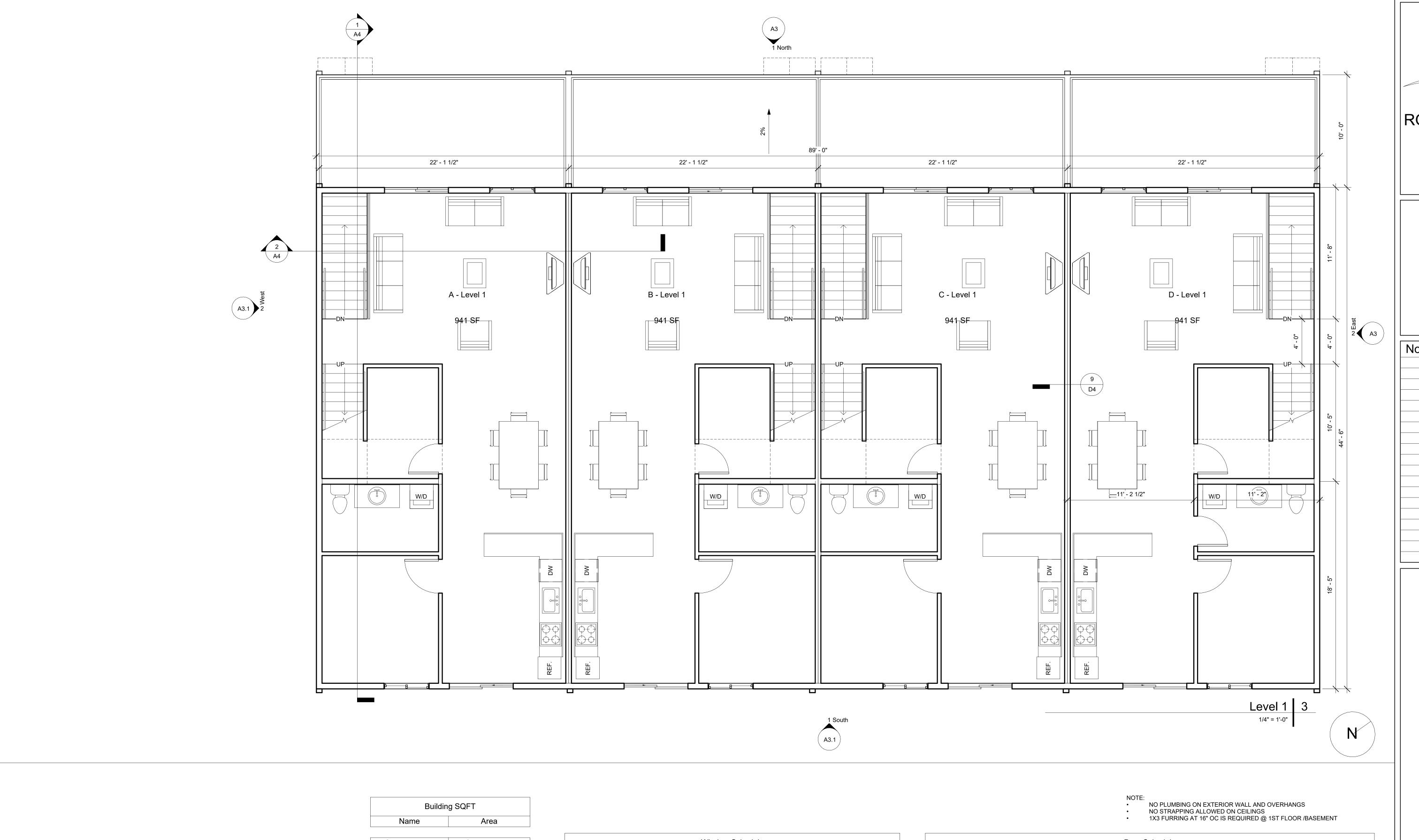
ROYAL CA CORP 661 W LEMON AVE

ARCADIA CA

91066 626-484-3573

No. Description Date

SITE PLAN 1/8" = 1'-0"



Name	Area			
A - Garage	463 SF			
A - Level 1	941 SF			
A - Level 2	881 SF			
	2285 SF			
B - Garage	465 SF			
B - Level 1	941 SF			
B - Level 2	881 SF			
	2286 SF			
C - Garage	465 SF			
C - Level 1	941 SF			
C - Level 2	881 SF			
	2286 SF			
D - Garage	465 SF			
D - Level 1	941 SF			
D - Level 2	881 SF			
	2287 SF			
Grand total	9144 SF			

	Window Schedule					
Type Mark	Count	Туре	Width	Height	Sill Height	Comments
				·	•	
W4	4	36" x 36" kitchen	4' - 0"	3' - 0"	3' - 0"	
W5	16	48" x 42"	4' - 0"	3' - 6"	3' - 0"	
Grand total:		1.2	1	1	1	

Door Schedule								
Type Mark	Count	Family	Туре	Width	Height	Comments		
3	8	Single-Flush	32" x 80"	2' - 8"	6' - 8"			
6	16	Single-Flush	36" x 80"	3' - 0"	6' - 8"			
7	12	Single-Flush	34" x 80"	2' - 10"	6' - 8"			
8	12	Door-Double-Sliding	68" x 80"	5' - 8"	6' - 8"			
41	4	Door-Garage-Flush_Panel	16x7	16' - 0"	7' - 0"			
D1	4	Door-Exterior-Single-Entry-Half Arch Glass-Wood_Clad	36" x 80"	3' - 0"	6' - 8"			
D7	12	Door-Interior-Double-Sliding-2_Pan el-Wood	60" x 80"	5' - 0"	6' - 8"			

Grand total: 68



ROYAL CA CORP

661 W LEMON AVE ARCADIA CA 91066 626-484-3573

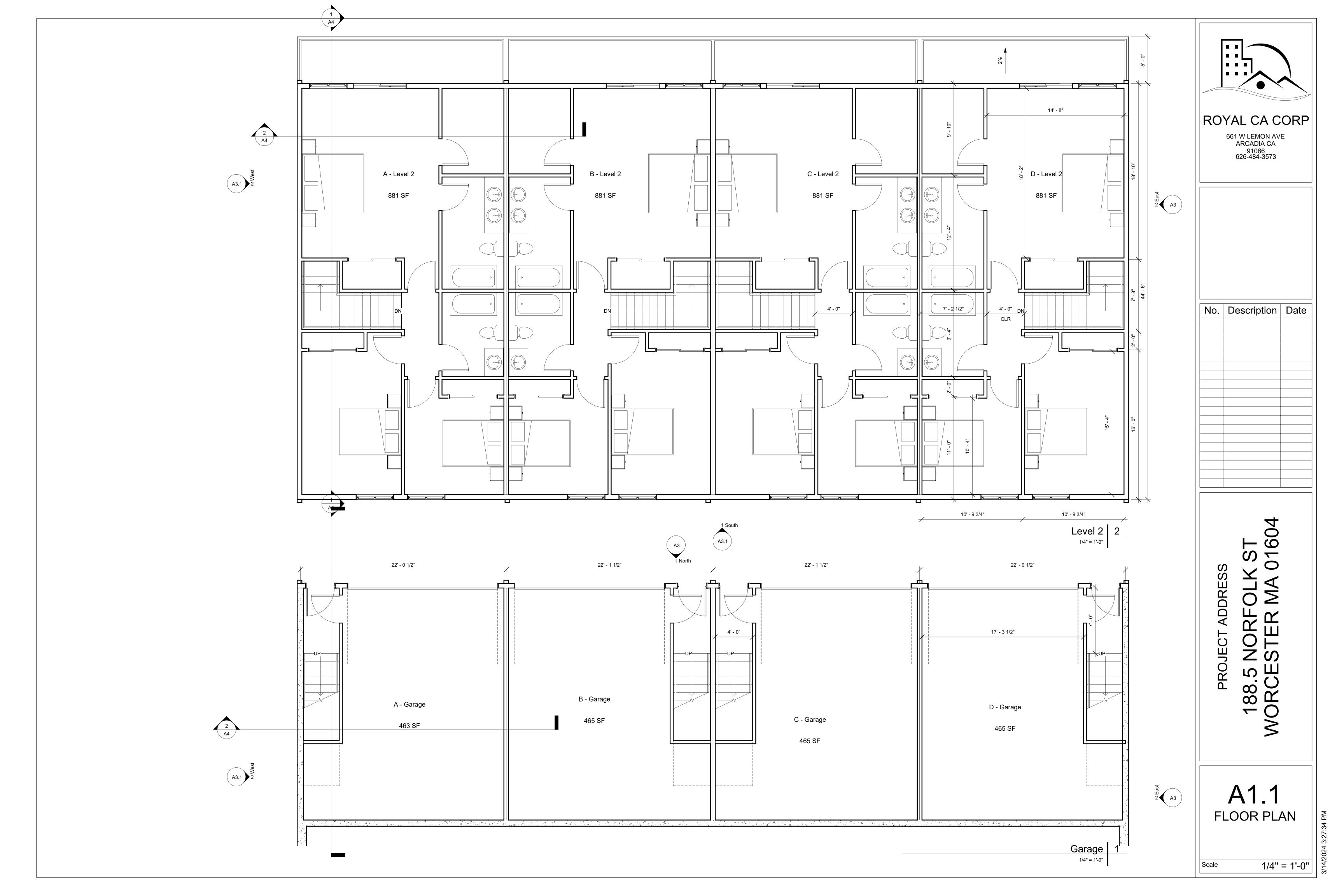
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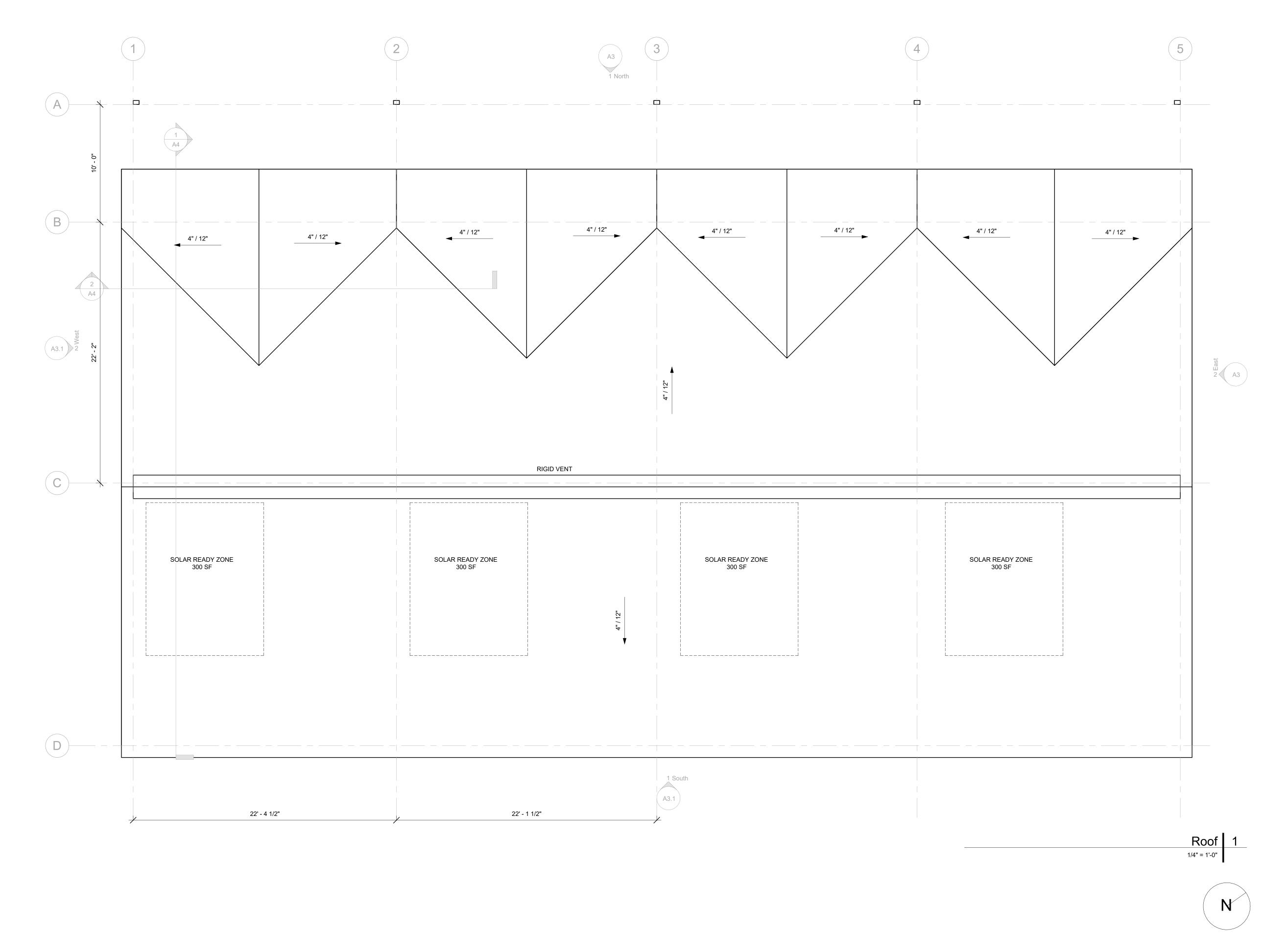
PROJECT ADDRESS
188.5 NORFOLK ST
WORCESTER MA 01604

A1FLOOR PLAN

cale 1/4" = 1'-0"

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ROYAL CA CORP

661 W LEMON AVE ARCADIA CA 91066 626-484-3573

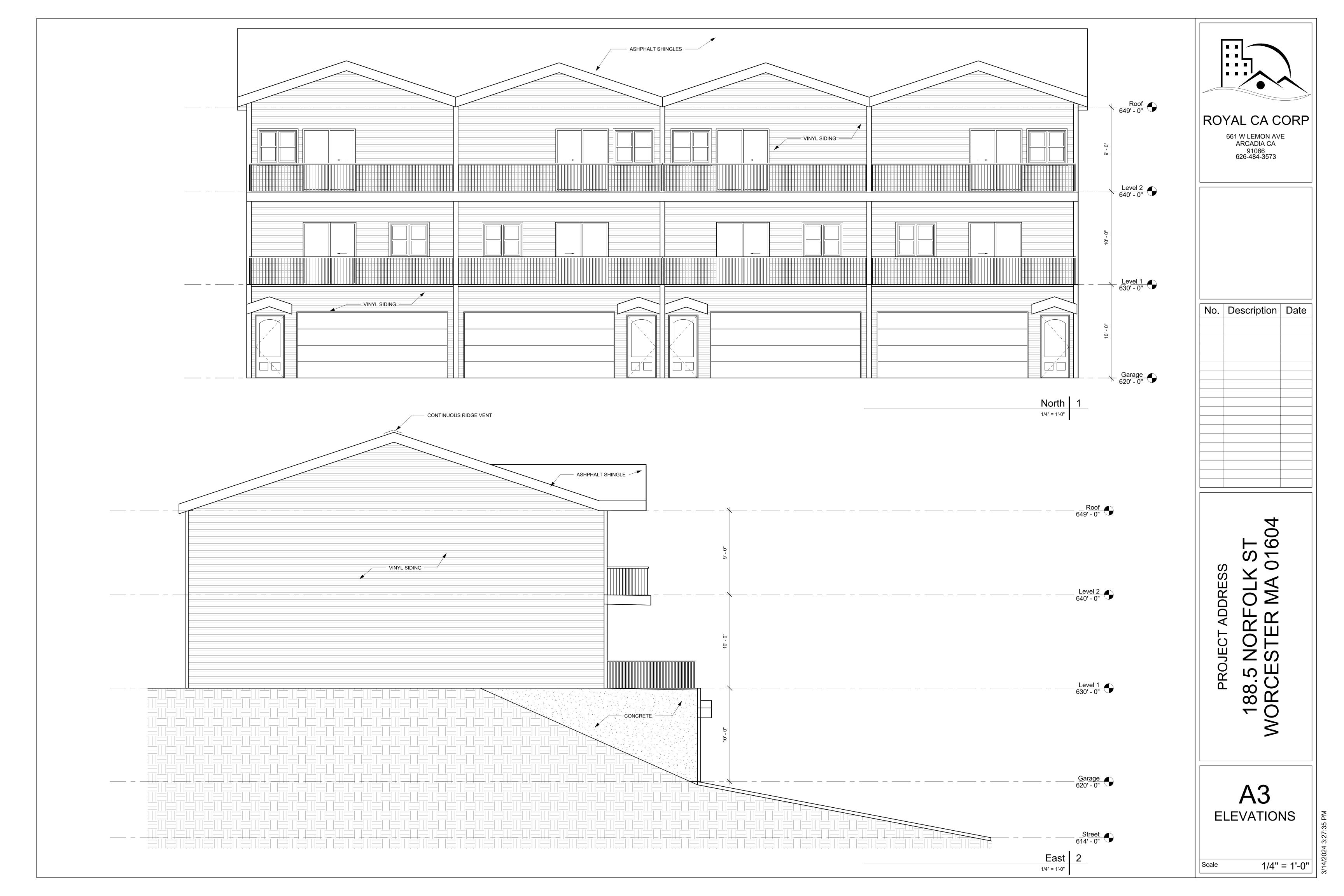
No. Description Date

188.5 NORFOLK ST ORCESTER MA 01604

A2 ROOF PLAN

1/4" = 1'-0"

2/14/2024 3:27:34 DM







ROYAL CA CORP

661 W LEMON AVE ARCADIA CA 91066 626-484-3573

No. Description Date

188.5 NORFOLK ST ORCESTER MA 01604

A3.1 ELEVATIONS

ale 1/4" = 1'-0"